

REMARKS

In accordance with the foregoing, claims 1, 2, 7, 13, 74, and 77 have been amended, claims 82 and 73 have been added, claims 6, 75, 79, and 81 have been canceled without prejudice or disclaimer in view of the amendments to claims 1 and 74. Claims 1, 2, 4, 5, 7, 13, 14, 33, 54, 64, 65, 65, 74, 76-78, 80, 82 and 83 are pending and under consideration. Claims 82 and 83 are deemed patentable due at least to their depending from corresponding claims 1 and 74. No new matter is presented in this Amendment.

REJECTIONS UNDER 35 U.S.C. §103:

On pages 2-3 of the Office Action, the Examiner rejects claims 1, 2, 4-7, 13, 14, 33, 36-44, 52, 53, 56-60, 62-65, 74-79, and 81 under 35 U.S.C. §103(a) in view of Ijtsma et al. (U.S. Patent No. 6,606,285) and Tani (U.S. Patent No. 6,118,755). The rejection is respectfully traversed, and reconsideration is requested.

As a point of clarification, claims 6, 75, 79, and 81 have been canceled without prejudice or disclaimer and their features correspondingly incorporated into independent claims 1 and 74. As such, it is respectfully submitted that the rejection of claims 6, 75, 79, and 81 is deemed moot.

By way of review, Ijtsma et al. teaches using a Main Defect Table (MDT) which includes, in byte position (BP) 0 to 24, information about the type of defect table (DT), a number of DTs, information on the General Purpose Area, a size of a Replacement Area, and a format status of the disc. A Last Written Address (LWA) is at BP 26 of the MDT. The MDT further includes DT entries in bits 32-2047, where each DT includes 3 bits designating a defective packet and another 3 bits identifying a replacement packet for the defective packet. (Col. 6, line 29 to col. 8, line 4; FIG. 9 of Ijtsma et al.) However, as acknowledged by the Examiner, the LWA does not refer to a position of user data, and instead refers to a last formatted position in order to allow restarting of a deicing operation. (Col. 7, lines 55-60 and col. 12, lines 19-27 and FIGs. 9 and 15 of Ijtsma et al.)

In order to cure this deficiency, the Examiner relies upon Tani to disclose writing an address of last recorded user data. By way of review, Tani discloses recording an address A1 and A3 of data in a Program Memory Area (PMA) 23. However, the addresses A1 and A3 only pertain to data in a closed file. Where data 22 is being written and the file is not closed (i.e., in an area after address A3 to address A7), this data 22 is invisible to the apparatus since the address A7 is not written in the PMA 23. As such, Tani teaches that, to find the actual last

written address, a process of estimation is performed until a portion of the data 22 is found. After finding the portion of the data 22 at address A6, the data 22 is read forward to find the last true address A7 of the last data written to the disc. (Col. 4, lines 51-60, col. 5, lines 23-57; FIGs. 2 and 3 of Tani). As such, Tani does not suggest that the PMA 23 stores the last written data address (i.e., A7), and instead only stores selected addresses (A1, A3) for closed files. In contrast, claim 1 recites, among other features, that "the temporary defect management information ... includes an address area which comprises an address of last data that is last recorded in the user data area and which is accessed by the recording and/or reproducing apparatus."

Moreover, the features of claim 6 have been incorporated into claim 1. In the rejection of claim 6, the Examiner had asserted, without explanation, that the MDT discloses that "the temporary defect management area further comprises a pointer to a recording position of the temporary defect information" as recited in claim 6. By way of review, the MDT is shown in FIG. 9 and includes the DT entries in BPs 32 through 2047. However, there is no suggestion that elsewhere in the MDT, such as in BPs 0 through 31, information exists which points to one or all of these DT entries. Instead, Ijtsma et al. relies upon standardized positions of the DT entries in order to locate the DT entries. Since Tani is not relied upon to disclose such a pointer and does not relate to defect management, it is respectfully submitted that the combination does not disclose "the temporary defect management information comprising a pointer to a recording position of the temporary defect information" as recited in claim 1.

As such, it is respectfully submitted that the combination does not disclose or suggest the recited invention of claim 1.

For at least similar reasons, it is respectfully submitted that the combination does not disclose or suggest the features of claim 74.

Also, when new defects are found, Ijtsma et al. teaches that the MDT is simply rewritten to update the MDT. While a new MDT can be written, Ijtsma et al. discloses making a new MDT only when the prior MDT wears out due to overwriting. (Col. 5, lines 42-50 of Ijtsma et al.) However, there is no suggestion that, for each recording operation, a new MDT is created in another location. Since Tani does not relate to defect management, it is respectfully submitted that the combination does not disclose or suggest that, "for each of a plurality of recording operations, a pair of temporary defect information and temporary defect management information is recorded in the temporary defect management area in a location other than a location used for another pair relating to another one of the plurality of recording operations such

that each pair has a unique location" as recited in claim 2.

Also, to the extent that ljtsma et al. discloses storing addresses of defective packets, addresses of replacement packets, and the LWA, ljtsma et al. does not suggest storing a further address of a next location for a new replacement packet to be written. Since Tani is not relied upon to disclose such a feature, the combination also does not disclose or suggest that "the address area further comprises an address indicating a next address of the spare area to be used for next defective area replacement to be performed" as recited in claim 64.

Additionally, while ljtsma et al. discloses an MDT and a Secondary Defect Table (SDT), there is no suggestion of another table having the same information which is recorded in the lead in or lead out information during finalization of a disc. Instead, ljtsma et al. discloses the MDT in the lead in area as shown in FIG. 6, and the SDT being in the General Purpose Area as shown in FIG. 4. Further, there is no suggestion that the MDT or SDT are related to disc finalization. In contrast, claim 13 recites, among other feature, "a defect management area in a lead-in area and/or a lead-out area of the disc," and that "the defect management area is other than the temporary defect management area and further comprises a last recorded temporary defect information and a last recorded temporary defect management information recorded as defect information and defect management information, respectively, copied during finalization of the disc from the temporary defect management area." Since Tani does not relate to defect management, it is respectfully submitted that the combination does not disclose the invention as recited in claim 13.

For at least similar reasons, it is respectfully submitted that the combination does not disclose or suggest, among other features, that "the disc further comprises a defect management area other than the temporary defect management area into which the temporary defect information and temporary defect management information are copied when the disc is finalized" as recited in claim 77.

Further, in rejecting claim 33 on page 3 of the Office Action, the Examiner asserts that a write once medium is merely an alternative equivalent to any medium type. However, it is noted that ljtsma et al. relies on the re-writeable nature of the medium in order to allow updating the MDT. Thus, while an improvement suggested in ljtsma et al. is to account for overwriting of packets during use of a rewritable medium, there is no disclosure or suggestion of the use of this defect management system with respect to a write-once medium since write-once media do not allow such overwriting. As such, write-once media would not be considered equivalent in the context of the defect management disclosed in ljtsma et al. since the defect management

disclosed in Ijtsma et al., which explicitly relies upon the rewritable nature of the media, is incompatible with write once media.

In evaluating whether the prior art would be equivalent, the suggested equivalency cannot render the reference inoperative. As noted in MPEP 2143.01(V), "[I]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)." See also MPEP 2144.06. Thus, references cannot be equivalent where the asserted equivalent would so change a basic mode of operation of the primary reference that the combination would not be workable. While the Examiner asserts that the use of a defect list is known in the art regardless of disk type, it is respectfully submitted that the defect management of Ijtsma et al. relies on rewritable properties of the rewritable media and would not work on a write once medium, or that any form of defect management is performed for write-once media. As such, as there is insufficient evidence that the MDT used in Ijtsma et al. would even be usable with write-once media to perform defect management using a defect list as asserted by the Examiner, there is insufficient evidence or equivalency between write once media and rewriteable media for purposes of defect management as is required to maintain a *prima facie* obviousness rejection based upon equivalency.

To the extent that the Examiner relies upon the principles of inherency to cure this deficiency, where the Examiner is relying on a feature as being inherently disclosed in a reference, it is incumbent on the Examiner to provide evidence that such a feature necessarily exists in the reference. In re Robertson, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999), Manual of Patent Examination Procedures 2112. This burden of proof is consistent with the requirement that the Examiner provide sufficient evidence that each and every element is disclosed in a combination as is required to make a *prima facie* rejection under 35 U.S.C. §103. Manual of Patent Examination Procedures 2143.

As such, as there is insufficient evidence of record that the defect management asserted by the Examiner on page 3 is performed for write-once disks, or that Ijtsma et al. inherently so discloses, it is respectfully submitted that the combination does not disclose, through inherency or otherwise, that "the disc is a write-once storage medium having a property which prevents, after the data is recorded on an area of the disc, new data from being written to the area of the disc" as recited in claim 33.

For at least similar reasons, it is respectfully submitted that the combination does not

disclose, through inherency or otherwise, that "the storage medium is a write-once storage medium" as recited in claim 76.

Claims 4, 5, 7, 14, 65, 77, and 78 are deemed patentable due at least to their depending from corresponding claims 1 and 74.

Lastly, as a general matter, in order to establish a prima facie obviousness rejection, the Examiner needs to provide both the existence of individual elements corresponding to the recited limitations, and a motivation to combine the individual elements in order to create the recited invention. Both the individual elements and the motivation need to be shown to have existed in the prior art. Should the Examiner fail to provide evidence that either one of the individual elements or the motivation does not exist in the prior art, then the Examiner has not provided sufficient evidence to maintain a prima facie obviousness rejection of the claim. MPEP 2143.03. Thus, the burden is initially on the Examiner to provide evidence as to why one of ordinary skill in the art would have been motivated to combine the individual elements to create the recited invention, and to demonstrate that this evidence existed in the prior art. MPEP 2143.01.

On page 3 of the Office Action, the Examiner asserts that one of ordinary skill in the art would have been motivated to include an address of the last recorded address as suggested in Tani in the MDT as disclosed in Ijtsma et al. so that it can be accessed by the apparatus. However, the Examiner does not disclose a rationale or a source of this suggestion, or why one of ordinary skill in the art would have, at the time of the invention, record such a last address in the MDT as opposed to other areas of the lead in area. As such, there is insufficient evidence of a motivation to make the combination in a manner meeting the claimed invention.

In reviewing the combination, Tani describes a CD-R or CD-RW as having a table of contents (TOCs) and a PMA. (Col. 4, lines 45-50 of Tani). In col. 4, lines 28-30, Ijtsma et al. discloses the MDT being used for a CD-RW, and thus presumably has both a TOC and a PMA. There is no suggestion in Tani that the last address is of use in defect management as opposed to data area management such that is unclear as to why this information would be included in the MDT, which is reserved for defect management information. As such, there is also no explanation as to why, out of all areas of the lead in area including a TOC or PMA, that the apparatus in Ijtsma et al. should record such an address in the MDT, which relates only to defect management, instead of in the PMA as suggested by Tani. As such, it is respectfully submitted that one skilled in the art would not combine the last address information described in Tani with the MDT of Ijtsma et al. as is required to find obviousness for the purposes of 35 U.S.C. §103.

ALLOWABLE SUBJECT MATTER:

On page 4 of the Office Action, the Examiner allows claims 54 and 80.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

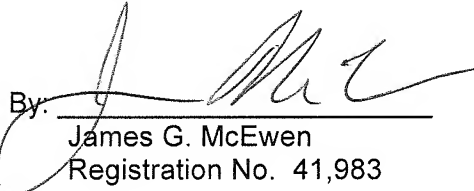
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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